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09/811,195	03/17/2001	Rajesh Kumar	49500	6673

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THE LAW OFFICE OF KIRK D. WILLIAMS
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EXAMINER	
PHAN, TRI H	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/811,195	KUMAR ET AL.	
	Examiner	Art Unit	
	Tri H. Phan	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-31 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-31 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 17 March 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 23 is objected to because of the following informalities:

In claim 23, line 8, "the second bandwidth" should be correct to – a second bandwidth -- for clarity.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 19-20 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 19 recites the limitation "said determining the call characterization" in line 1. There is insufficient antecedent basis for this limitation in the claim 19 nor in the parent claim (Claim 14).

Similar problem exists in claim 20, line 1.

- In regard to claim 22, line 1, it recites the limitation "A computer-readable medium containing computer-executable instructions for performing the method of claim 14." is vague and indefinite, because the examiner is unclear and do not know whether the method(s) of the claim 14 is (are) performed and is (are) part of the method claimed invention or not, such as "signaling to establish ...", "receiving ...", "requesting ...", and the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Also, claim 22 claimed "A computer-readable medium containing computer-executable instructions ...", which is not a method claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1-2, 4-8, 10-12, 27 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by **Abrishami et al.** (U.S.2001/0033642).

- In regard to claim 1, **Abrishami** discloses in Figs. 1-5 and in the respective portions of the specification about the system and method for optimizing the facsimile data transmission over the digital or packet network (For example see Fig. 1); wherein, at the set up, call is

initiating with the proposed call parameters ("*first traffic characteristic*") in the handshake message for negotiation and session establishment ("*signaling to establish a call*"; For example see Fig. 1; page 5, para [0058]; page 5-6, para [0065]), discriminated between the voice and the facsimile signal by the 'voice/FAX/Data' detector ("*monitoring and receiving the telephonic signal*"; For example see Fig. 3; page 4, para [0048]; page 5, para [0059]), the available bandwidth based on the request and service type is allocated and assigned by the bandwidth manager ("*determining the call characterization*"; For example see Fig. 3; page 4, paras [0048]; page 5, para [0059]), and the detection of the fax in the voice channel (For example see page 4, para [0049]) or the real-time monitoring information, such as network throughput, delay, bandwidth and packet jitter during transmission, (For example see page 4, paras [0050-0051]) can be used to request the adjustment of the bandwidth on-demand to either increase or decrease the rate of transmission, e.g. rate renegotiation, by the Retrain signal ("*requesting the modification of the call with the second traffic characteristic*"; For example see page 4-5, paras [0052], [0054]).

- Regarding claims 2 and 4-6, **Abrishami** further discloses about the method for adjustment the bandwidth, e.g. rate, when detecting the voice/fax/data by the voice/fax/data detector ("*the first/second bandwidth requirements*"; For example see page 4, paras [0048-0049]; page 5, para [0059]); where the rate is adjusted based on the available bandwidth ("*first/second packet data rate*"; For example see page 3, para [0033]; page 4, para [0050]; page 5, para [0060]); and the rate adjustment can be either increased or decreased the rate of transmission

("*the first packet rate is less/greater than the second packet rate*"; For example see page 3, para [0043]; page 4, para [0052]; page 5, para [0060]).

- In regard to claims 7-8 and 11-12, **Abrishami** further discloses about the method for detecting the voice/fax/data by the voice/fax/data detector ("*detecting modem/facsimile transmission*"; For example see page 4, para [0048]; page 5, para [0059]).

- Regarding claims 10 and 30, **Abrishami** discloses in Figs. 1-5 and in the respective portions of the specification about the system and method for optimizing the facsimile data transmission over the digital or packet network ("*packet call*"; For example see Fig. 1); wherein, at the set up, call is initiating ("*monitoring and receiving the telephonic signal*"; For example see page 5, para [0058]) with the proposed call parameters ("*first bandwidth*") in the handshake message for negotiation and session establishment ("*signaling to establish a call*"; For example see Fig. 1; page 5, para [0058]; page 5-6, para [0065]), discriminated between the voice and the facsimile signal by the 'voice/FAX/Data' detector ("*detecting the traffic type*"; For example see Fig. 3; page 4, para [0048]; page 5, para [0059]), the available bandwidth based on the request and service type is allocated and assigned by the bandwidth manager ("*signaling to request the modification*"; For example see Fig. 3; page 4, para [0048]; page 5, para [0059]), and the detection of the fax in the voice channel ("*detecting facsimile signal*"; For example see page 4, para [0048]) or the real-time monitoring information, such as network throughput, delay, bandwidth and packet jitter during transmission (For example see page 4, paras [0050-0051]) can be used to request the adjustment of the bandwidth on-demand, e.g. rate renegotiation, to either

increase or decrease the rate of transmission ("*increasing bandwidth with second bandwidth*"; For example see page 4-5, paras [0052], [0054]).

- In regard to claim 27, **Abrishami** discloses in Figs. 1-5 and in the respective portions of the specification about the system and method for optimizing the facsimile data transmission over the digital or packet network ("*packet network*"; For example see Fig. 1); wherein, at the set up, call is initiating ("*receiving the telephonic signal*"; For example see page 5, para [0058]) with the proposed call parameters ("*first bandwidth*") in the handshake message for negotiation and session establishment ("*signaling to establish a call*"; For example see Fig. 1; page 5, para [0058]; page 5-6, para [0065]), discriminated between the voice and the facsimile signal by the 'voice/FAX/Data' detector ("*detecting the traffic characterization by the telephonic interface*"; For example see Fig. 3; page 4, para [0048]; page 5, para [0059]), the available bandwidth based on the request and service type is allocated and assigned ("*signaling to request the modification*"; For example see Fig. 3; page 4, para [0048]; page 5, para [0059]) by the bandwidth manager and control processor ("*signaling agent*"), and the detection of the fax in the voice channel ("*particular type of traffic*"; For example see page 4, para [0048]) or the real-time monitoring information, such as network throughput, delay, bandwidth and packet jitter during transmission (For example see page 4, paras [0050-0051]) can be used to request the adjustment of the bandwidth on-demand, e.g. rate renegotiation, to either increase or decrease the rate of transmission ("*modifying the first bandwidth with the second bandwidth*"; For example see page 4-5, paras [0052], [0054]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 3, 14-20, 22-25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Abrishami et al.** (U.S.2001/0033642).

- In regard to claim 3, **Abrishami** discloses about the system and method for optimizing the facsimile data transmission over the digital or packet network (For example see Fig. 1); wherein, at the set up, call is initiating with the proposed call parameters ("*first traffic characteristic*") in the handshake message for negotiation and session establishment ("*signaling to establish a call*"; For example see Fig. 1; page 5, para [0058]; page 5-6, para [0065]), discriminated between the voice and the facsimile signal by the 'voice/FAX/Data' detector ("*monitoring and receiving the telephonic signal*"; For example see Fig. 3; page 4, para [0048]; page 5, para [0059]), the available bandwidth based on the request and service type is allocated and assigned by the bandwidth manager ("*determining the call characterization*"; For example see Fig. 3; page 4, paras [0048]; page 5, para [0059]), and the detection of the fax in the voice channel (For example see page 4, para [0049]) or by the real-time monitoring information, such as network throughput, delay, bandwidth and packet jitter during transmission, (For example see page 4, paras [0050-0051]) can be used to request the adjustment of the bandwidth on-demand or

rate adjustment to either increase or decrease the rate of transmission ("*requesting the modification of the call with the second traffic characteristic*"; For example see page 4-5, paras [0052], [0054]). Though, **Abrishami** does not explicitly disclose about the "*fixed and variable packet rates*" as in the claimed invention 3; however, **Abrishami** does disclose about the transmission with different rates and over different types of networks, which use ATM or Internet protocol (For example see page 6, para [0067]); wherein the "*fixed and variable packet rates*" is well known in the art for transmission in the ATM network.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the use of the ATM network for transmission the "*fixed and variable packet rates*" in the **Abrishami**'s relay system, with the motivation being to provide the ability to transfer data through different type of networks with different rates.

- Regarding claims 14 and 22-23, **Abrishami** discloses in Figs. 1-5 and in the respective portions of the specification about the system and method for optimizing the facsimile data transmission over the digital or packet network (For example see Fig. 1); wherein, at the set up, call is initiating with the proposed call parameters ("*first traffic characteristic*") in the handshake message for negotiation and session establishment ("*signaling to establish a call*"; For example see Fig. 1; page 5, para [0058]; page 5-6, para [0065]), discriminated between the voice and the facsimile signal, e.g. detecting of the fax in the voice channel, by the 'voice/FAX/Data' detector ("receiving the indicator of the call characterization"; For example see Fig. 3; page 4, para [0048]; page 5, para [0059]; wherein, the "*indication*" of the call type such as voice/fax/data is inherent in the detecting the type of the call by the 'voice/FAX/Data' detector), the available

bandwidth based on the request and service type is allocated and assigned by the bandwidth manager ("*determining the call characterization*"; For example see Fig. 3; page 4, paras [0048-0049]; page 5, para [0059]), and the real-time monitoring information, such as network throughput, delay, bandwidth and packet jitter during transmission, (For example see page 4, paras [0050-0051]) can be used to request the adjustment of the bandwidth on-demand to either increase or decrease the rate of transmission, e.g. rate renegotiation, by the Retrain signal ("*requesting the modification of the call with the second traffic characteristic*"; For example see page 4-5, paras [0049], [0052], [0054]; wherein the adjustment of the bandwidth or rate is the "*second traffic characteristic*"). Though, **Abrishami** does not explicitly disclose about the "*computer-readable medium with the computer-executable instructions*" as in the claimed invention 23 to perform such methods as disclosed above; however, it is inherent that programs stored in the memory or hardware ("*computer-readable medium with the computer-executable instructions*") is needed, for the control processor and the bandwidth management in the relay gateway to execute methods such as detecting the voice/fax/data signal, real-time monitoring and adjusting the bandwidth on-demand.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to provide the program in the **Abrishami**'s relay gateway, with the motivation being to computerize the functions into program for friendly and easily debug or change.

- Regarding claims 15-18, **Abrishami** further discloses about the method for adjustment the bandwidth, e.g. rate, when detecting the voice/fax/data by the voice/fax/data detector, ("*the*

first/second bandwidth requirements"; For example see page 4, paras [0048-0049]; page 5, para [0059]); where the rate is adjusted based on the available bandwidth ("*first/second packet data rate*"; For example see page 3, para [0033]; page 4, para [0050]; page 5, para [0060]); and the rate adjustment can be either increased or decreased the rate of transmission ("*the first packet rate is less/greater than the second packet rate*"; For example see page 3, para [0043]; page 4, para [0052]; page 5, para [0060]).

- In regard to claims 19-20, 24-25 and 28, **Abrishami** further discloses about the method for detecting the voice/fax/data by the voice/fax/data detector ("*detecting modem/facsimile transmission*"; For example see page 4, para [0048]; page 5, para [0059]).

8. Claims 9, 13, 21, 26, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Abrishami et al.** (U.S.2001/0033642) in view of **So** (U.S.6,735,176).

- In regard to claims 9, 13, 21, 26, 29 and 31, **Abrishami** further discloses all the subject matter of the claimed invention as discussed in part 5 of this Office action above, about the system and method for optimizing the facsimile data transmission over the digital or packet network; wherein, at the set up, call is initiating with the proposed call parameters in the handshake message for negotiation and session establishment, discriminated between the voice and the facsimile signal by the 'voice/FAX/Data' detector, the available bandwidth based on the request and service type is allocated and assigned by the bandwidth manager, and the detection of the fax in the voice channel or by the real-time monitoring information, such as network

throughput, delay, bandwidth and packet jitter during transmission can be used to request the adjustment of the bandwidth on-demand or rate adjustment to either increase or decrease the rate of transmission. **Abrishami** also discloses about the transmission over different types of networks, such as ATM or Internet protocol (For example see page 6, para [0067]); but fails to explicitly disclose about using the "*Q.2963.x signaling*" for requesting the call's modification. However, such implementation is known in the art.

For example, **So** in Figs. 1-4 and in the respective portions of the specification about the system and method for adjusting the bandwidth of the network or parties on the active connection, by using the Q.2963 modify request message ("*Q.2963.x signaling*" for requesting the call's modification; For example see Fig. 3; col. 1, lines 19-56; col. 4, lines 40-53; col. 5, lines 65-67).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the invention as taught by **So**, by using the modify request message in **Abrishami**'s system, with the motivation being to provide the ability to request changing the bandwidth from the network or parties while the connection is active.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Way et al. (U.S.6,272,553) and **Kim et al.** (U.S.2001/0038631) are all cited to show devices and methods for improving dynamic bandwidth management in the communication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tri H. Phan
October 12, 2004

DANG TON
PRIMARY EXAMINER